

**Amendments to the Specification:**

Please amend the specification as follows:

**Page 2, last paragraph (lines 32-37), continuing on page 3 (lines 1-11)**

According to an aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

an input ~~unit~~ means for inputting loan amounts loaned to each loan customer and bankruptcy probabilities of each loan customer;

a characteristic function calculating ~~unit~~ means for calculating a characteristic function on the basis of each loan amount and each bankruptcy probability inputted through the input ~~unit~~ means;

a probability distribution calculating ~~unit~~ means for calculating a probability distribution by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means; and

a probability distribution output ~~unit~~ means for outputting the probability distribution calculated by the probability distribution calculating ~~unit~~ means.

**Page 3, first full paragraph (lines 12-30)**

According to another aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

an acquiring ~~unit~~ means for acquiring rating fluctuation probabilities which are the probabilities of fluctuation in ratings of each loan customer, and credit value changing amounts which are changes in value of the credit to each loan customer caused by the fluctuation in the ratings thereof;

a characteristic function calculating ~~unit~~ means for calculating a characteristic function on the basis of each rating fluctuation probability and each credit value changing amount;

a probability distribution calculating ~~unit~~ means for calculating a probability distribution by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means; and

a probability distribution output ~~unit~~ means for outputting the probability distribution calculated by the probability distribution calculating ~~unit~~ means.

Page 3, last paragraph (lines 31-37), continuing on page 4 (lines 1-12)

According to a further aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

an input ~~unit~~ means for inputting loan amounts loaned to each loan customer and bankruptcy probabilities of each loan customer;

an actual loss calculating ~~unit~~ means for calculating actual losses which are amounts of the losses the financing organization may actually suffer when each loan customer goes into bankruptcy;

a characteristic function calculating ~~unit~~ means for calculating a characteristic function on the basis of the actual losses and the bankruptcy probabilities;

a probability distribution calculating ~~unit~~ means for calculating a probability distribution by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means; and

a probability distribution output ~~unit~~ means for outputting the probability distribution calculated by the probability distribution calculating ~~unit~~ means.

Page 4, first full paragraph (lines 13-37)

According to a still further aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

a scenario acquiring ~~unit~~ means for acquiring a plurality of actual losses which are amounts of losses the financing organization may suffer when each loan customer goes into bankruptcy by predicting future fluctuations, and a plurality of bankruptcy probabilities of

each loan customer by predicting future fluctuations, and using these values as a plurality of scenarios;

a characteristic function calculating ~~unit~~ means for calculating characteristic function for each scenario on the basis of the actual losses and the bankruptcy probabilities acquired by the scenario acquiring ~~unit~~ means;

a probability distribution calculating ~~unit~~ means for calculating probability distributions for each scenario by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means;

an average probability distribution calculating ~~unit~~ means for calculating an average probability distribution which is the average of the probability distributions for each scenario; and

a probability distribution output ~~unit~~ means for outputting the average probability distribution calculated by the average probability distribution calculating ~~unit~~ means.

Page 5, first paragraph (lines 1-22)

According to a yet further aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

a scenario acquiring ~~unit~~ means for acquiring a plurality of actual losses which are amounts of losses the financing organization may suffer when each loan customer goes into bankruptcy by predicting future fluctuations, and a plurality of bankruptcy probabilities of each loan customer by predicting future fluctuations, and using these values as a plurality of scenarios;

a characteristic function calculating ~~unit~~ means for calculating characteristic functions for each scenario on the basis of the plurality of actual losses and bankruptcy probabilities acquired by the scenario acquiring ~~unit~~ means;

a probability distribution calculating ~~unit~~ means for calculating probability distributions for each scenario by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means; and

a probability distribution output ~~unit~~ means for outputting the probability distributions calculated by the probability distribution calculating ~~unit~~ means for each scenario.

Page 5, last paragraph (lines 23-37), continuing on page 6 (lines 1-8)

According to a further aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

a scenario acquiring ~~unit~~ means for acquiring loan amounts of each loan customer and acquiring a plurality of bankruptcy probabilities of each loan customer by predicting future fluctuations, and then using these values as a plurality of scenarios;

a characteristic function calculating ~~unit~~ means for calculating characteristic functions for each scenario on the basis of the loan amounts and the bankruptcy probabilities acquired by the scenario acquiring ~~unit~~ means;

a probability distribution calculating ~~unit~~ means for calculating probability distributions for each scenario by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means;

an average probability distribution calculating ~~unit~~ means for calculating an average probability distribution which is the average of the probability distributions for each scenario; and

a probability distribution output ~~unit~~ means for outputting the average probability distribution calculated by the average probability distribution calculating ~~unit~~ means.

Page 6, first full paragraph (lines 9-28)

According to a still further aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having a plurality of loan customers, comprising:

a scenario acquiring ~~unit~~ means for acquiring loan amounts of each loan customer and acquiring a plurality of bankruptcy probabilities of each loan customer by predicting future fluctuations, and then using these values as a plurality of scenarios;

a characteristic function calculating ~~unit~~ means for calculating characteristic functions for each scenario on the basis of the loan amounts and the bankruptcy probabilities acquired by the scenario acquiring ~~unit~~ means;

a probability distribution calculating ~~unit~~ means for calculating probability distributions for each scenario by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means; and

a probability distribution output ~~unit~~ means for outputting the probability distributions calculated by the probability distribution calculating ~~unit~~ means for each scenario.

Page 6, last paragraph (lines 29-37), continuing on page 7 (lines 1-14)

According to a yet further aspect of the invention, there is provided a system for computing probability distribution of loan losses in a financing organization having N loan customers  $k=1 \dots N$  comprising:

an input ~~unit~~ means for inputting loan amounts  $M_k$  to individual N loan customers  $k=1 \dots N$  and bankruptcy probabilities  $p_k$  thereof;

a loan customer calculating ~~unit~~ means for calculating the number N of the loan customers on the basis of the loan amounts  $M_k$  and/or the bankruptcy probabilities  $p_k$  inputted by the input ~~unit~~ means;

a characteristic function calculating ~~unit~~ means for calculating a characteristic function

$$\phi(t) = \prod_{k=1}^N \{1 + p_k (\exp(itM_k) - 1)\}$$

at each t of  $t=2\pi m/(2^{2n})$  ( $m=0, 1, 2, \dots, 2^{2n}-1$ ) for the number of points n of Fourier transform;

a probability distribution calculating ~~unit~~ means for calculating a probability distribution by Fourier transform inversion of the characteristic function calculated by the characteristic function calculating ~~unit~~ means, by using a fast Fourier transform technique; and

a probability distribution output ~~unit~~ means for outputting the probability distribution calculated by the probability distribution calculating ~~unit~~ means.